



### Shutdown '08 Schedule

#### RPC Factory:

Dark Current test stand design Done, fabricate by 1/1
Storage Racks with humid. Cntrl design 9/30, fabricate by 1/1

Mu Trigger FEE upgrade:

Rack assembly North installed, South by 11/15

N&S platforms Fabricate & install North installed, South by 11/15 (Pearson)

Prep work for platforms (water/elec) Done

FEE Chasis installation N&S sta's. 1,2&3 North done, South 2&3 done, South 1

by 10/31

FEE water and dry air installation Station 1,2 & N Done,

Sta. 2&3S by 10/15, Sta 1 south by 11/15

Starting 9/15: sta 1N by 9/30, sta 2 N by

10/15, sta 3N by 10/31, 5 by 11/15

complete by 10/15 complete by 10/17 10/17 - 10/31

In progress, Complete by 11/15

10/31

11/3-11/7

12/1

Complete by 11/30

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Install Elec cards

Disassemble station1 scaffold

Move CM & MMS North

Install S rack cooling & electric

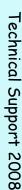
Rack room electronics, etc.

Move MMS South

Install scaffolding in sta 1 south

Remove sta 1 scaffolding from south

**Testing** 





# Shutdown '08 Schedule

RPC external review RPC proptotype installation:		Sep. 25
KPC propt	Prep work move (7) MuID pipes	wait for final installation design
	move gap 5 south cable tray  Rack prep	In progress complete by Oct.15
	RPC prototype gas system	In progress complete by Oct. 31
<del>-</del>	Move shielding for installation	Oct.1 [Pearson]
	RPC prototype cable routing & support	10/1-10/15
	Modify crystal palace & vapor barrier	as necesary [Pearson]
Technical Support 2008	RPC prototype install (RPC2 - PHENIX) (RPC3 - C. Pearson)	1/2 Octants to be ready for inst. by 9/29 Install 10/20-10/30 Install 9/29-10/30
	Install rack in tunnel south	Install by 10/15
<b>00</b>	Replace tunnel shielding/Vapor Barrier	After proto RPC3 installed [Pearson]
	Connect electronics/gas	10/15-11/15
	Install lead absorber	11/10-11/14
MuTr Decapacitations (Sta. 1&3 S)  Fan Tray maintenance PC1 west work		Sta. 3 completed 2008 work, more in 2009 Sta. 1: 11/10-11/30
		in progress (on going fill-in)
		10/20-10/31 (planning is in progress



# Shutdown '08 Schedule, cont'd

Build new storage crates for scaffolding		10/1-10/31		
	(Sta 1 & 2/3N)			
HBD Install		11/3-11/14		
DC East?/West Repairs		12/15-1/1		
Gas mixing house UPS		complete by 11/30		
Remove all inst'n equipment				
	Sta 1 (from south)	Remove by 12/1		
	Sta 2/3 scaffolds	Remove by 12/15		
	all other testing equipment	Remove by 12/15		
	Prep for shutdown 2009			
	Gap 5 N piping and cable tray re-loc.	Oct Dec		
	Gap 2 N cable tray & crate re-mounts	Not req'd until RPC2 re-instated		
Prep for run 9				
	Begin run 9 Prep	12/1/09		
	Install all lampshades	Complete by 11/26		
	Roll in EC	12/22		
	Pink/White/Blue sheets	12/29		
	Install MuID collar	12/30		
	Close shield wall	12/31		
Cryo Start up		1/1/09		
Flammable Gas/start shifts		1/11/09		
Start physics		1/18/09		
End Run 9		6/30/09		

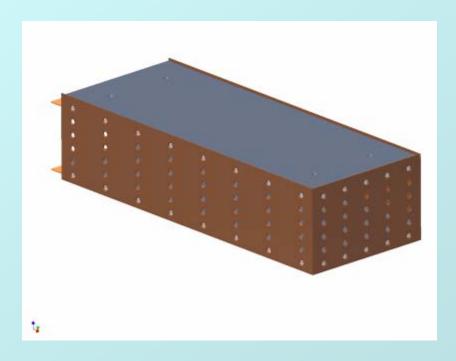


### Shutdown '08 Schedule, cont'd

#### Other Work

NCC prototype design support
HBD support
VTX fabrication tooling design
VTX installation design
FVTX design/engineering support

Done? (for now)
as required
11/23-?
Waiting for specs
as required



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### Shutdown '08 Electrician Work

- 1. Run Power to new MuTrgr FEE racks on MMN and MMS. North done, South by 10/31. Install power feeds to RPC north & south tunnel racks from IR power panels. Done
- 2. Install new UPS in Gas mixing house. By 11/30
- 3. Re-wire ToF Rack power distribution bucket in Gas Mixing House. This is to correct minor wiring errors. By 10/31/08
- 4. Install <u>power</u> and <u>signal</u> cable tray (ceiling suspended) for new DCM rack row north of existing DCM racks. To Be Scheduled
- 5. Assist in signal and LV cable installation for MuTr/RPC upgrades as necessary. MuTrgr North Done, MuTrgr South & RPC Prototype to be scheduled
- 6. Install 120 volt AC power drops into new control room annunciator alarm rack (rack room). Work in progress, to be completed by 10/15.
- 7. Upgrade power capacity of Central Magnet power distribution for future bridge rack loads.
  - a) Remove existing 15KVA transformer and install 45KVA unit.
  - b) Install new (larger size) power cable from rack room to Central Magnet distribution breaker panels.

Lower priority not required for run 9, to be scheduled when manpower available and operations & projects inconvenience are minimized

8. Walk down PHENIX Electrical Distribution Panels/Breakers and update changes on the electrical one-line drawings. Complete by 11/30/08.



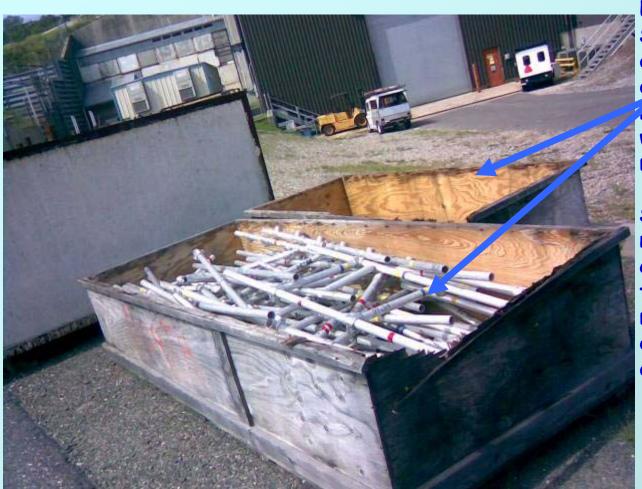


MuTrgr FEE
South Rack
Ready to be
installed
after CM
moves north





# Scaffolding Crates



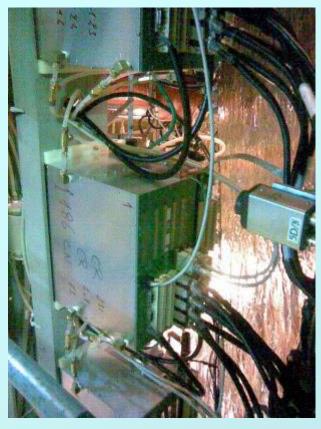
Existing Crates for Sta 2/3N scaffolds are severely rotted and need to be replaced with weather resistant materials.

Sta. 1 scaffolds do not have storage crates. These need to be built of similar materials. All dimensions of crates are available.





# MuTrigger FEE Installation







Station 1 2 & 3 S
Cooling water and dry
air are done.

LV cable installation inMutrgr North rack is done, testing in progress





## MuTrigger FEE South & RPC Prototype Racks



Work on these racks is in progress



# MuTr FEE upgrade status

Tsutomu Mibe (KEK) for the onsite upgrade team

# Status of ADTX board

- Need total 40 boards to cover whole station 1
- First 20 boards arrived at 1008
  - Completed final check up: all passed OK
  - Ready for installation
- Next 20 boards depart Japan in Sep 25
  - Fully tested in Japan
  - Estimated arrival next Tuesday (Sep 30)
- Blank panels for empty slot will be shipped from Japan in Sep. 30



# Status of ADTX board (cont.)

- Production of rest of 180 boards are in progress
  - Completed production of base board
  - Another 37 boards will arrive at KEK in Sep 30
  - Trouble getting DAC (MAXIM) for the last 143 boards



# LV preparation plan

- Completed checking LV lines
- LV testing started from Wed
- Found inconsistency of wiring between + and GND at chassis and rack
  - Corrected wiring at chassis
- Completed voltage drop measurement
  - voltage drop = 0.2– 1.2 V
- Completed tuning supply voltage
  - Voltage at chassis is in a range of 6.5-7.1V



# Connecting analog cable to new chassis

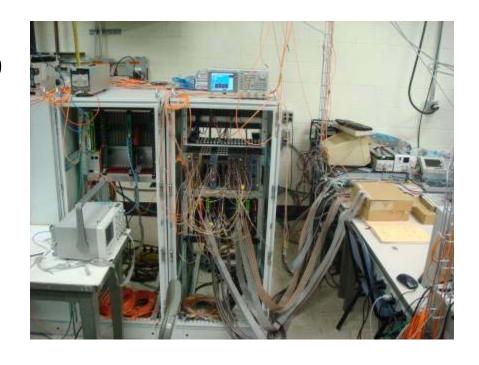
- Station 1
  - Completed 14 chassis at station 1 (30 cm cables)
  - Need to use 40 cm cables for 8 chassis (2<sup>nd</sup> week of Oct).
- Station 2
  - Completed octant 7
- Station 3
  - Completed octant 5 (2 chassis)



# Remaining tasks for completion of North station 1

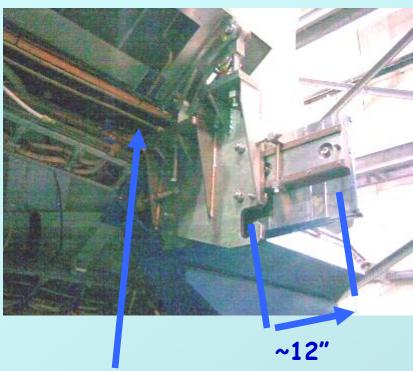
### Infrastructure

- Beam clock distribution (cabling in progress)
- Signal cable installation (40 cm cables)
- ADTX boards prep
  - 20 boards are ready to install.
  - Next 20 boards
    - QA
  - Installation
- Chain test
  - Read out by Ad-hoc local DAQ (>1wk?)





# (Note: DC East shown below; West is similar)



Electronics repair to be accessed in this area after DC is moved east



Entire DC must be moved east ~12"







Bearing rails

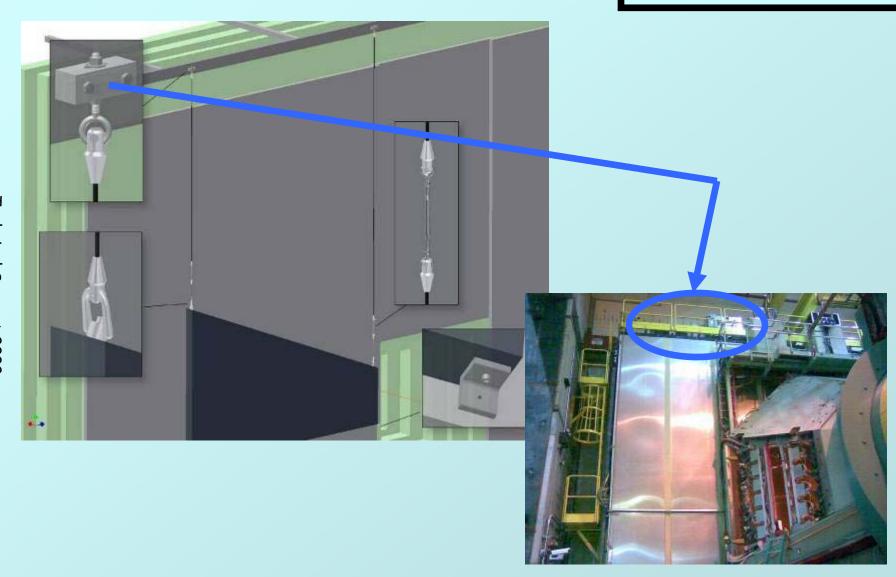
Translation Bar (pushing surface) is placed here



Cabling and piping must be carefully evaluated and disconnected or allowed to travel as appropriate

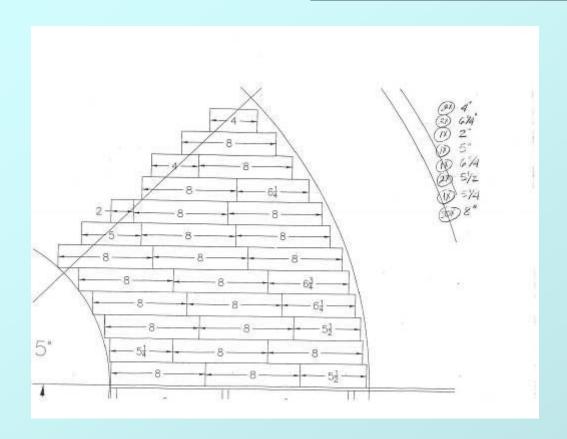








## RPC Absorber



We need 80 2x4x8 and 28 2x4xZ, where Z is 13 different lengths of varying quantities between 1-1/2" and 6-3/4"

#### RFQ placed with CS

J. Scott will deliver 120 2×4×8 rad clean and painted lead bricks, on skid to 1008 by 10/15

Don, Jimmy, Kenny, Carter, John and Mike L. must take TQ-LEAD1 (web course) by 10/15

Lead cutting can be done at CS, then need to be repainted on cut face.

Work permit req'd



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### RPC2 Prototype Installation





RPC prototypes will be ready for installation 9/29. Final electronics check to be performed over next 2 weeks.





Gap and Module storage plan written and will be madse a part of the overall RPC factory plan.



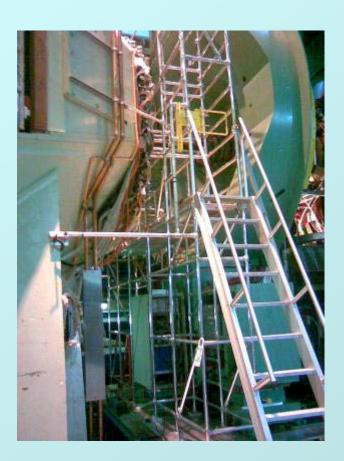
RPC group to dispose of shipping containers and left over equipment to keep storage area uncluttered.





### MuTr Decapacitations

Remaining 2008 work: Station 1 South to be done ~ 11/10-11/30 simultaneously with MuTrgr South and RPC absorber installations. Will require Station 1 scaffolding on south side of CM.



(Note: picture at left is mirrorred image of scaffolding in station 1 north.)

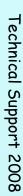
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## Rack Room Reorganization



Fairly accurate model of the current rack room configuration

Plumbing, HVAC and cable management, items in machine shop and items in laser room omitted





## Safety, Security, etc.

1. Training status has been updated (see email).

Please note: Aerial -P due for several

Rad worker not needed until run

Added lead course (1-time, web) for mech guys

2. Performance Appraisals

3. Info on BNL website concerning bedbugs:



http://www.bnl.gov/esh/shsd/PDF/Bedbugs%20ESH%20Cord%20Mtg%20%20091708.pdf



# Where To Find PHENIX Engineering Info



Links for the weekly planning meeting slides, long term planning, pictures, videos and other technical info can be found on the web site:

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL\_SSint-page.htm

9/26/08